990



EUROPLAN DIRECT

Self-levelling and very high-quality levelling compound with built-in primer for the direct levelling of cement-based and other stone subfloors in most cases without the use of a primer. In combination with 811 Europlan Fibre also very suitable for wooden floors (panels). Virtually tension-free. Excellent flow properties. Pumpable. Suitable for use under parquet floors. Layer thickness from 2 mm to a maximum of 20 mm. Suitable for indoor use. Thanks to EMICODE EC 1PLUS (very low emission) also suitable for BREEAM projects.

PRODUCT TYPING

Base	Cement-based powder with a high synthetic binder content to be mixed with water.
Color	Grey.
Consistency	Powder.

- Very high quality, universal, low-stress setting, self-levelling compound, cement-based.
- For extreme loads.
- Can be used in most applications without primer.
- For levelling especially critical substrates such as waterproof, firmly bonded adhesive residues, mineral substrates, ceramic tiles, natural stone coverings, terrazzo, as well as standard mastic asphalt.
- Can also be used with primer on new mineral substrates, on screwed wood-based panels (V100 P4 - P7, OSB 2 - 4).
- Can also be used as substrate under Eurocol Surface products.
- Also for the production of Eurocol FloorDesign floors in combination with Eurocol pigment powder and Eurocol Surface Finish.
- Can be used in layer thicknesses up to 20 mm, on mastic asphalt up to 5 mm.
- For subsequent flooring work and the laying of parquet.
- Pumpable.
- Squeegeeable.
- Dust reduced. (**)
- Favourable spreading capacity
- Self-smoothing
- Low-tension
- Excellent flow
- High compression strength
- Casein-free
- The product can be used on underfloor heating and is suitable for use with chair castors in accordance with DIN EN 12529.
- For indoor use.
- Very low emission laying material, certified according to EMICODE EC 1 Plus.

PROPERTIES

Adhesion	After 28 days 2.75 N/mm^2
Bending Strength	According to NEN-EN 13892-2:2002: after 28 days ≥ 11 N/mm^2.
Bureau Wheelchair resistance	From 1 mm layer thickness.
Classification	CE: DIN EN 13813: CT-C35-F10.
Compressive strength	According to NEN-EN 13892-2:2002: after 28 days ≥ 33 N/mm^2.
Consumption	Approx. 1.5 kg/m^2 per mm layer thickness.
Flammability	Non-flammable.
Sensitive to frost	No.
Passableness	2 - 3 hours at (18 - 20) °C.*
Special quality	Dust reduced (**), can usually be used without primer. Can also be used under parquet flooring.

APPLICATION

For levelling critical and stony subfloors (interior use) in layers up to 20 mm.

If applying by pump:

Consult pump supplier, ensure the pump is suitable for all types of levelling compounds. Pumping with a too high mixing rate can cause an insufficient flow of the levelling compound.

PROCESSING

Layer thickness	Maximum 20 mm.

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Storage	Store cool and dry.
Tools	Trowel or notched squeegee in combination with a spiked roller, mixing-device.
Mixing ratio	Add 23 kg of 990 Europlan Direct to 5.5 - 6,0 litres of water. Add 25 kg of 990 Europlan Direct to 6,0 - 6,5 litres of water.
Processing time	Use within 20 minutes after mixing.*
Waiting time	Approx 3 minutes.
Drying	24 hours.*
Shelf Life	9 months, in unopened packaging.
Cleaner	Water.
Remarks	For layer thicknesses over 10 mm, on moisture-sensitive (e.g. calcium sulphate screeds) or unstable substrates, Eurocol reactive primers, e.g. 042 Euroblock Turbo or 021 Euroblock Reno LE should be used. For layer thicknesses over 10 mm, on screwed wood-based panels, Eurocol reactive primers, e.g. 042 Euroblock Turbo or 021 Euroblock Reno LE should be used. Technical information and safety data sheets of other laying materials and floorings/parquet must be observed! Apply flooring to the filled area within the next few days! For absorbent subfloors keep a minimum layer thickness of 2 mm, for non-absorbent subfloors a minimum layer thickness of 3 mm. When used under parquet, a minimum layer thickness of 3 mm must be observed. In case of multi-layer application, the layer thickness of the second application must not exceed the layer thickness of the first application. After application of levelling compound. • Fresh surfaces should be protected against direct sun light, draughts, high temperature (above +30°C), rain and frost. • To obtain the recommended long term technical performance of product, after finishing levelling works installation of floor covering should be done within the shortest period of time, which depends on product's drying time within 3 to 7 days, otherwise the surface should be protected with a suitable coating or covering. Not suitable on floating dry screed elements or floating wood-based panels. The readiness for laying is dependent on the thickness of the layer and depends in particular on the climatic conditions on site. Wear protective glasses and gloves. If the adhesive or installation material comes into contact with your eyes, wash out immediately with plenty of water and consult an ophthalmologist. Protect your hands with waterproof, robust gloves. Wear long trousers. Avoid prolonged skin contact with the adhesive or installation material. Thoroughly clean affected skin parts with water immediately. The longer fresh adhesive or installation material remains on your skin, the greater the risk of serious skin damage. Keep children away from fresh adhesive or installation material. EMICODE, for more information visit www.emicode.com. For levelling work in connection with subsequent parquet adhesives using Eurocol 1K or 2K parquet adhesives, only use Eurocol 048 Europrimer Plus or reactive Eurocol primers.

** The stated values are laboratory values which, given the large variation in climatological conditions, subfloor compositions and layer thicknesses, are only guideline values.*

Substrate:

- 990 Europlan Direct can be applied on any type of stony subfloor that is rigid and has a good tensile and compression strength. The subfloor should also be clean, permanently dry and free from grease and dirt, according to the requirements of BS 8203 or DIN 18 365/DIN 18356.
- In most cases it is not necessary to use a primer.
- Degrease smooth and impervious subfloors (tile floors, granito, terrazzo etc.) with 014 Euroclean/891 Euroclean Basic and and dry well.
- Absorbent subfloors (sand/cement screeds) can be levelled with 990 Europlan Direct without a primer.
- Prime very strong porous subfloors with 044 Europrimer Multi/044-1 Europrimer Multi Plus, 099 Dispersion Primer or 049 Europrimer ABS with a foam roller.
- Prime moisture sensitive subfloors (e.g. anhydrite, magnesite, water-soluble adhesive residues etc.) with 021 Euroblock Reno/021 Euroblock LE, 042 Eurobloick Turbo or 026 Euroblock Multi.
- In case of asphalt floors and bituminous substrates contact our technical department.
- Fill cracks and deep damages with 905 Europlan Fill or 945 Europlan Solid/940 Europlan Quick.
- After hardening prime 905 Europlan Fill or 945 Europlan Solid with 044 Europrimer Multi/044-1 Europrimer Multi Plus or 049 Europrimer ABS.
- Wooden floorboards must be of a good waterproof quality. During mixing of the 23 kg levelling mortar, add 250 g 811 Europlan Fibre. Minimum layer thickness must be 3 mm. Don`t devide the levelling mortar with a notched squeegee. Seams must be sealed up with 900 Europlan Reno or a suitable acrylic sealant.
- Appropriately dimensioned Eurocol edge strips are to be used for rising building components.
- Fix cracks/seams in the subfloor with 021 Euroblock Reno LE in combination with 063 Eurotape and 846 Quartzsand or 808 Eurojoint Connector in combination with 021 Euroblock Reno LE. Alternatively with Europlan 913 Silicate sealing compound.
- Level anhydrite floors with 925 Europlan Alphy Direct, 924 Europlan Hybrid or 920 Europlan Alphy.
- In advance always seek our technical data sheets. In doubt about the application ask for technical advice.

Instruction manual:

- Add 23 kg of 990 Europlan Direct to 5.5 - 6 litres of cool and clean tap water.
- Stir thoroughly, using an electric stirrer (Eurocol no. 855), to a smooth and homogeneous mixture.
- Wait for approx. 3 minutes and stir the mortar once again with a low rpm.
- Apply the mortar within 20 minutes on the floor with a trowel or notched squeegee.
- When pumping, adjust the mixing-device in such way that per 23 kg 990 Europlan Direct 5,5 - 6 litres of cool and clean tap water will be added.
- Protect fresh levelling compound layers against draft and direct sunlight.
- Under normal circumstances the applied layer is passable after 2-3 hours. At a layer thickness of 5 mm the levelling compound layer is ready for the installation of a floor covering after 24 hours.
- For extended information about the safety precautions we refer to the safety data sheet on our website www.eurocol.nl.

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Working conditions:
Required surrounding temperature : 18 - 23 °C.
Temperature for material and subfloor : min. 15° - max. 20 °C.
Relative humidity : 40 - 70%.

Underfloor heating systems:
990 Europlan Direct can be applied on underfloor heating systems. The startprotocol of the floorheating needs to be completly executed in accordance with the directives of the supplier. Turn off the heater 24 hours before application; do not heat again until at least 24 hours after installation, in steps of maximum 5 °C water temperature per day.

QUALITY AND GUARANTEE

ENVIRONMENT AND HEALTH

GISCODE	ZP1 Cementitious products, low chromate.
LEED	VOC 0 g/l, meets: IEQ Credit 4.1
DGNB	VOC 0 %, quality level: 4
Hazard Class	Observe notes in the safety data sheet/label!
Safety and environment	Safety data sheets of Forbo Eurocol products according to EEG-guideline 91/155. Wear protective gloves and safety glasses! Keep out of reach of children. Do not eat, drink or smoke while processing the product. Only give completely empty containers for recycling. Material residues can be disposed of as household waste.
MSDS	For extensive information about safety and environment we refer to our website www.eurocol.nl.
Substances causing allergy	Contains Cement, portland, chemicals, flue dust. May produce an allergic reaction.

ITEM DATA

Article	Definition	Packaging	EAN-code	Shipping unit
990	Europlan Direct	23 kg bag	8 710345990202	42/pallet
990	Europlan Direct	25 kg bag	4 026956115502	42/pallet (**) Made in Germany

Any application method/ conditions other than specified in this Technical data sheet require explicit manufacturer's approval. In case of deviance in application method/ conditions liability by manufacturer cannot be guaranteed. This technical data sheet contains advice on handling and application of the product, based on experience and tests run by the manufacturer in laboratory and practical work. The information supplied by the manufacturer are non-binding and cannot be used as a basis for establishing the manufacturers liability for any damages caused. The values stated in this technical data sheet were measured under standard laboratory conditions. As application conditions outside the laboratory vary strongly this technical data sheet must be considered a guide only. Therefore the manufacturer does not take liability for damages caused by the customer's utilization of the technical data sheet content. As use, processing- and storage conditions on site are beyond manufacturers influence, a warranty for the processing result cannot be given. This also includes the infringement of any rights for the protection of third parties. Sufficient testing areas are to be provided before final application. Relevant national norms and regulations of the industry are to be observed. Outside Germany valid, relevant national norms and regulations, have to be taken into account and to be followed by the customer. It is the responsibility of the customer to check product suitability for the intended procedure and purposes prior to use.

This Technical Information supersedes all previously issued application data sheets and product information are no longer valid!

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